DIRECT TESTIMONY OF
RACHEL M. ROBINSON
ON BEHALF OF
SOUTH CAROLINA ELECTRIC & GAS COMPANY
DOCKET NO. 2017-5-G

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND POSITION.

A. My name is Rachel M. Robinson, and my business address is 220 Operation Way, Cayce, South Carolina. I am the Manager – Electric and Gas Regulatory Accounting for SCANA Services, Inc. ("SCANA Services").

Q. PLEASE DESCRIBE YOUR EDUCATIONAL AND BUSINESS BACKGROUND.

A. I received a Bachelor of Science degree in Business Administration with a major in Accounting from the University of South Carolina and a Master of Business Administration degree with a concentration in Accounting from Winthrop University. Prior to my employment with SCANA Services, I worked in the mortgage banking industry as an Internal Auditor. I joined SCANA Services in October 2001 as an Internal Auditor with increasing responsibility leading audits including supervising team members, drafting audit reports, and communicating results to management. In February 2008, I accepted a Senior Analyst position in SCANA Services' Financial Planning and Budgeting Department with responsibility for coordinating the development of SCANA Corporation's annual operations and maintenance budget. In October 2010, I accepted a Senior Analyst position in SCANA Services' Gas Rates and Regulatory Accounting area and was

promoted to Lead Analyst in February 2013 and to Supervisor of the Gas Rates and Regulatory Accounting Department in January 2015. In September 2017, I assumed my current position as Manager – Electric and Gas Regulatory Accounting. I am a Certified Internal Auditor and Certified Public Accountant in South Carolina.

Q. WHAT ARE YOUR DUTIES AS MANAGER OF ELECTRIC AND GAS REGULATORY ACCOUNTING?

A. My responsibilities include managing the administration of the purchased gas adjustment ("PGA"), including the monthly forecast of commodity and demand gas cost billing rates and the monthly (over)/under collection balance calculation. In addition, I manage the preparation of the quarterly monitoring report filings for South Carolina Electric & Gas Company ("SCE&G" or the "Company"), as well as the annual Natural Gas Rate Stabilization Act ("RSA") filing. My responsibilities also include the preparation of SCE&G electric and gas operations financial projections and analyses. I manage and assist with the development of cost of service studies, rate analyses, and rate design.

Q. PLEASE DESCRIBE THE PURPOSE OF YOUR TESTIMONY.

A. The purpose of my testimony is to support the cost of gas ("COG") data, including the (over)/under collection amount for the period under review in this proceeding, which is August 1, 2016, through July 31, 2017 ("Review Period").

Q. PLEASE DESCRIBE HOW SCE&G ADMINISTERED THE APPROVED PGA GAS COST RECOVERY MECHANISM DURING THE REVIEW PERIOD.

A. SCE&G calculates the gas cost factor for each customer class every month using a rolling 12-month forecast of both demand and commodity costs. SCE&G updates its COG forecast monthly using current New York Mercantile Exchange ("NYMEX") prices as projected for each of the next 12 months. SCE&G uses the NYMEX closing prices for a date selected by the Company that allows the revised rates to be filed with the Public Service Commission of South Carolina ("Commission") before the first billing cycle of the next month. The forecast is reviewed monthly and updated as needed to reflect current assessments of anticipated industrial margins, capacity release credits, and firm sales levels. The recalibrated 12-month recovery factors, adjusted to zero-out any prior month's (over)/under recovery for the 12-month period, determines the gas cost recovery factors for the upcoming month. After notifying the Commission and the South Carolina Office of Regulatory Staff ("ORS"), the factors are implemented for the first billing cycle of the following month.

Q. WHAT ARE THE UPDATED DEMAND COG ("DCOG") ALLOCATION ("DCOG") FACTORS?

A. The Company reviews the DCOG allocation factors each year during the PGA proceeding and updates the factors to reflect current forecast assumptions.

Pursuant to Order No. 2006-679, these DCOG allocation factors are based on a weighting of 50% forecast sales and 50% forecast peak design day demand. The forecast peak design day demand for the upcoming 2017-2018 winter is 407,191 dekatherms after adjusting for system losses. This resulting forecast is used for capacity planning purposes as illustrated in the testimony and exhibits of Company Witness Jackson. Based on the latest annual sales and demand forecasts, the new DCOG allocation factors will be 65.64% for Residential, 28.95% for Small General Service/Medium General Service ("SGS/MGS") and 5.41% for Large General Service ("LGS") usage groups. SCE&G respectfully requests that these new DCOG allocation factors be approved by the Commission and made effective for the first billing cycle of January 2018.

Q. WHAT ARE THE COMPANY'S CURRENTLY APPROVED FACTORS FOR COG?

A. As of September 22, 2017, the current COG factors, which became effective with the Company's first billing cycle in February 2017, are $0.59962 per therm for Residential, $0.52930 per therm for SGS/MGS and $0.57744 per therm for LGS. These factors include a Firm Commodity Benchmark for all firm customer groups of $0.38885 per therm. Under the provisions of Order Nos. 2006-679 and 2009-910, SCE&G recalculates the COG monthly to determine whether an adjustment should be made to the current COG factors. If an adjustment to the COG factors is necessary, then SCE&G notifies the Commission and ORS of the Company's intent

to adjust its COG factors beginning with the first billing cycle in the next succeeding month.

Q. DURING THE REVIEW PERIOD HAS SCE&G ADMINISTERED THE PGA MECHANISM IN ACCORDANCE WITH THE TERMS OF ORDER NOS. 2006-679 AND 2009-910?

A. Yes. During the Review Period, SCE&G implemented the PGA mechanism in compliance with Order Nos. 2006-679 and 2009-910. The results are set forth on Exhibit No. ____ (RMR-1). This exhibit accurately reflects administration of the PGA recovery mechanism as approved by the Commission.

Q. PLEASE EXPLAIN EXHIBIT NO. ____ (RMR-1).

A. Exhibit No. ____ (RMR-1) shows monthly (over)/under collections experienced by SCE&G in administering the PGA mechanism during the Review Period. This exhibit shows that SCE&G entered the Review Period with an under collection of $10,248,686. As of the end of the Review Period, the exhibit shows an under-collected balance of $16,152,786. As of August 31, 2017, the under-collected balance was $17,396,319.

Q. **PLEASE EXPLAIN EXHIBIT NO. ____ (RMR-2).**

A. Exhibit No. ____ (RMR-2) shows a summary of the monthly forecast of gas cost components and the resulting monthly (over)/under collection balances. The

end of period balance of zero shows that the forecasted gas cost factors would eliminate any projected (over)/under collection amount by the end of the forecast period ending August 2018.

Q. DID THE MILD WINTER CONTRIBUTE TO THE INCREASE IN THE UNDER-COLLECTED BALANCE?

A. Yes. We had an extremely mild winter on our system. When this occurs, actual sales can be significantly lower than forecast sales and thus the full contribution to the fixed demand cost of gas is not realized. This causes the under-collected balance to increase.

GAS WEATHER NORMALIZATION ADJUSTMENT ("GWNA")

Q. PLEASE PROVIDE A HISTORY OF THE COMMISSION'S APPROVAL OF THE GWNA.

A. By Order No. 91-971, dated November 1, 1991, the Commission approved the Company's use of the GWNA for a three-year period, and it was implemented in December 1991. The Commission subsequently ordered that the GWNA be continued on an indefinite basis in Order No. 94-875, dated August 26, 1994.

The Company had experienced substantial fluctuations in its firm gas sales attributable to variations in winter temperatures. Deviations from normal winter temperatures produced dramatic fluctuations in customers' bills and variations in firm gas sales significantly impacted the stability of the Company's operating

revenues. As a result, the Company applied for approval of the GWNA to adjust its base rates to account for deviations from normal weather. GWNA was proposed to eliminate the need for a weather-related general rate increase. The Commission Staff evaluated the alternative of weather-related general rate increases and concluded the continuation of GWNA was in the overall best interest of customers. The Commission concluded the continuation of the mechanism was in the public interest and ordered it be continued on an indefinite basis.

Q. HAVE YOU PREPARED AN EXHIBIT EXPLAINING HOW THE GWNA FUNCTIONS?

A. Yes. Exhibit No. ____ (RMR-3) is a series of slides explaining the GWNA and how it functions.

Q. DOES THE APPROVED GWNA IMPACT THE COG?

A. No. In the winter billing months of November through April, the GWNA offsets the effects of abnormal temperatures thus providing the opportunity to recover the fixed costs (such as system maintenance, safety regulations, billing systems, and customer service) associated with operating and maintaining a safe, reliable natural gas distribution system. The GWNA increases the base rate for customers with weather-sensitive usage during periods of warmer than normal winter weather. Conversely, when winter weather is colder than normal, the GWNA reduces the base rate for customers with weather-sensitive usage.

Q. DURING THE REVIEW PERIOD DID THE GWNA PERFORM AS DESIGNED?

A. Yes. During the Review Period, the GWNA performed as designed. However, during its review of the GWNA, the ORS determined that the Company manually transposed in its customer billing system the high and low temperature for the day on December 17, 2016. This resulted in an inadvertent billing error for certain residential and commercial customers. Pursuant to Commission Regulation 103-440, SCE&G will issue the affected residential and commercial customers a one-time credit averaging $0.66 and $2.18, respectively, during the billing month of October 2017.

Q. IN LIGHT OF THE PGA MECHANISM AND THE RSA, IS THE GWNA STILL NECESSARY?

A. Yes. The PGA mechanism allows the Company to recover its prudently incurred purchased gas costs. The GWNA is applied to the non-gas cost rate, i.e., the base rate, and is not applied to the portion of the rate which recovers purchased gas costs. Under the terms of the RSA, the Company is allowed to recover its prudently incurred costs to serve its customers and is given the opportunity to earn a rate of return within a range approved by the Commission. Through the RSA, the Company's base rates are set using firm gas sales that assume normal temperatures will be experienced. The GWNA works to mitigate the effects of abnormal winter temperatures on the Company and its firm customers. The risk of substantial

fluctuations in firm gas sales due to deviations from normal weather during the winter heating season is still present today. Since this risk is not mitigated by the PGA and would likely require more dramatic rate adjustments through the RSA, the GWNA is still necessary and beneficial today. GWNA impacts customers' bills on a real-time basis and eliminates the need for weather-related general rate increases which would remain on customers' bills (including bills for customers with non-weather sensitive usage) for an entire 12-month billing period.

Q. WHAT ARE YOU REQUESTING OF THE COMMISSION IN THIS PROCEEDING?

A. On behalf of SCE&G, I respectfully request the Commission find that (1) during the Review Period, the Company properly administered the PGA mechanism and correctly adjusted the gas cost recovery factors for each customer usage group in accordance with the terms of Order Nos. 2006-679 and 2009-910; (2) the Company recovered its gas costs for the Review Period consistent with its tariffs and Commission orders and that it purchased its gas supplies and administered the PGA in a prudent and reasonable manner; (3) the new DCOG allocation factors are appropriate and to be effective for the first billing cycle of January 2018; and (4) the current gas cost recovery mechanism be continued.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.

Exhibit No.___(RMR-1)

SOUTH CAROLINA ELECTRIC & GAS COMPANY
PURCHASED GAS ADJUSTMENT
(OVER)/UNDER COLLECTION

	ACTUAL COMM. COST PER THERM (COL. 1)	BILLING COMM. COST PER THERM (COL. 2)	DIFFERENCE (COL. 3) (1-2)	FIRM SALES THERMS (COL. 4)	COMMODITY (OVER)UNDER COLLECTION (COL. 5) (3x4)	DEMAND (OVER)UNDER COLLECTION (COL. 6)	TOTAL (OVER)UNDER COLLECTION (COL. 7) (5+6)	CUMULATIVE (OVER)UNDER COLLECTION (COL. 8)
							BEGINNING BALANCE	$10,248,686
AUG 16	$0.28551	$0.26772	$0.01779	8,172,418	$145,463	$2,282,049	$2,427,512	$12,676,198
SEP 16	$0.23881	$0.26772	($0.02891)	8,509,415	($249,772)	$2,182,627	$1,932,855	$14,609,053
OCT 16	$0.35054	$0.29640	$0.05414	8,665,017	$462,796	$1,367,482	$1,830,278	$16,439,331
NOV 16	$0.47605	$0.29640	$0.17965	14,561,324	$2,612,633	($3,230,169)	($617,536)	$15,821,794
DEC 16	$0.44933	$0.29640	$0.15293	29,139,573	$4,466,788	($6,036,560)	($1,569,772)	$14,252,023
JAN 17	$0.37920	$0.36524	$0.01396	35,767,031	$398,188	($1,339,524)	($941,336)	$13,310,687
FEB 17	$0.29273	$0.38885	($0.09612)	26,572,817	($2,668,521)	$2,262,180	($406,342)	$12,904,345
MAR 17	$0.31667	$0.38885	($0.07218)	24,949,927	($1,788,820)	($529,102)	($2,317,923)	$10,586,422
APR 17	$0.21910	$0.38885	($0.16975)	16,220,306	($2,743,193)	$3,684,040	$940,848	$11,527,270
MAY 17	$0.26904	$0.38885	($0.11981)	10,607,321	($1,249,132)	$2,612,844	$1,363,712	$12,890,982
JUN 17	$0.26494	$0.38885	($0.12391)	9,487,279	($1,158,254)	$2,655,238	$1,496,984	$14,387,965
JUL 17	$0.30015	$0.38885	($0.08870)	8,051,518	($705,090)	$2,469,912	$1,764,821	$16,152,786

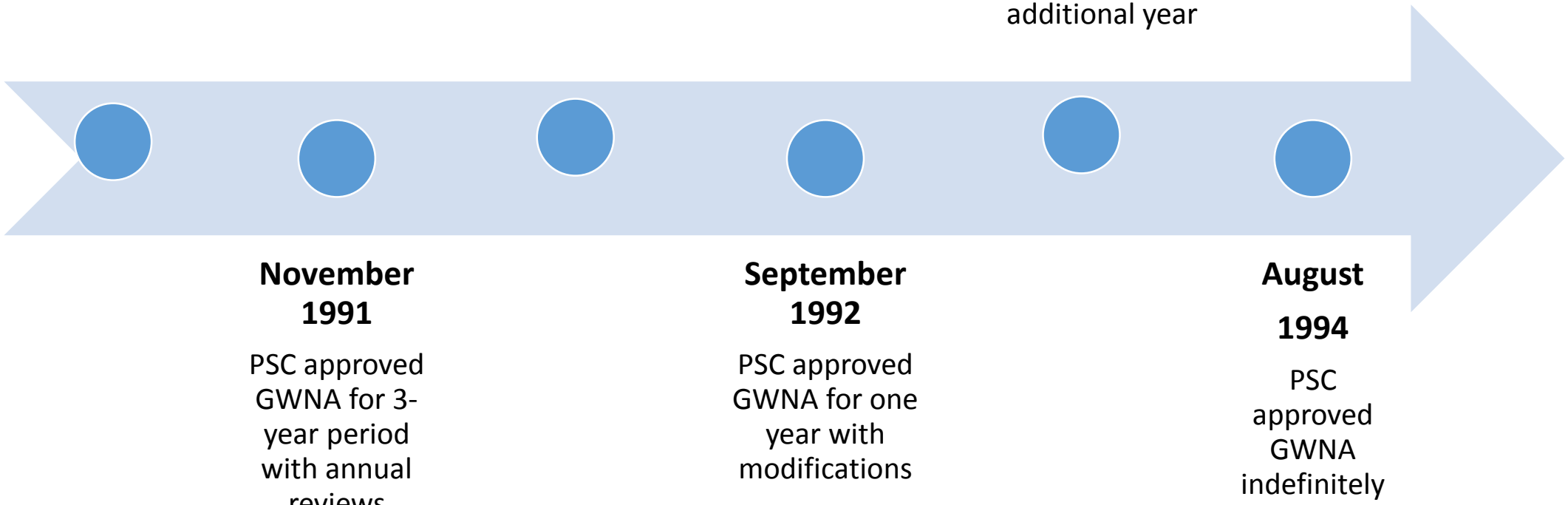
Exhibit No.___(RMR-2)

SOUTH CAROLINA ELECTRIC AND GAS COMPANY
PROJECTED COMMODITY AND DEMAND COSTS
(OVER)/UNDER COLLECTION

	COMM COST PER THERM (COL. 1)	BILLING COMM COST PER THERM (COL. 2)	DIFFERENCE (COL. 3) (1-2)	FIRM SALES THERMS (COL. 4)	COMMODITY (OVER)UNDER COLLECTION (COL. 5) (3x4)	DEMAND (OVER)UNDER COLLECTION (COL. 6)	TOTAL (OVER)UNDER COLLECTION (COL. 7) (5+6)	CUMULATIVE TOTAL (OVER)UNDER COLLECTION (COL. 8)
						BALANCE @ END OF AUGUST 2017		$17,396,319
Sep-17	$0.48690	$0.30866	$0.17824	8,167,317	$1,455,763	$1,053,927	$2,509,690	$19,906,009
Oct-17	$0.51346	$0.30866	$0.20480	10,709,859	$2,193,363	($1,834,954)	$358,409	$20,264,417
Nov-17	$0.45652	$0.30866	$0.14786	17,042,651	$2,519,999	($5,633,563)	($3,113,564)	$17,150,853
Dec-17	$0.34504	$0.30866	$0.03638	32,034,093	$1,165,521	($8,468,339)	($7,302,817)	$9,848,035
Jan-18	$0.29295	$0.30866	($0.01571)	43,957,177	($690,385)	($11,485,550)	($12,175,935)	($2,327,899)
Feb-18	$0.24238	$0.30866	($0.06628)	40,961,179	($2,714,963)	($3,026,982)	($5,741,944)	($8,069,843)
Mar-18	$0.27338	$0.30866	($0.03528)	31,133,987	($1,098,329)	($712,350)	($1,810,679)	($9,880,523)
Apr-18	$0.25895	$0.30866	($0.04971)	18,726,211	($930,930)	$947,197	$16,267	($9,864,257)
May-18	$0.34900	$0.30866	$0.04034	11,763,303	$474,546	$776,253	$1,250,799	($8,613,457)
Jun-18	$0.38542	$0.30866	$0.07676	8,964,929	$688,130	$1,883,572	$2,571,701	($6,041,755)
Jul-18	$0.43959	$0.30866	$0.13093	8,353,194	$1,093,721	$1,083,110	$2,176,831	($3,864,924)
Aug-18	$0.57986	$0.30866	$0.27120	7,810,408	$2,118,159	$1,746,765	$3,864,924	$0

Gas Weather Normalization Adjustment (“GWNA”)

GWNA Timeline



GWNA has been in place for 25+ years

Why is GWNA Necessary?

- Winter weather patterns can vary. It can be colder or warmer than normal.
- Base rates are set with the assumption of sales based on normal weather.
- Company expenses are almost all fixed (not dependent on sales).
  (e.g., Operations & Maintenance of Plant, Taxes, Depreciation on Plant, Interest on Debt)
- Approximately 30% of non-gas cost revenues collected from firm customers is through a basic facilities charge (fixed rate). The remaining non-gas cost revenues are collected based on variable sales impacted by winter weather patterns.
- Capital investment repayment must be made regardless of sales.
  - (e.g., Buildings, Pipe in the ground, Meters, Materials & Supplies (Inventory), Vehicle Fleet, LNG Plant)

How Does GWNA Work?

- GWNA adjusts a customer's non-gas cost rate, i.e., **base rate** (per therm) to normal temperature conditions.
- GWNA is only applicable to **Residential** and **Commercial** customers with weather-sensitive usage as determined by regression analyses.
- GWNA is only applicable in winter billing months **(November through April)**.
- GWNA is designed to help **stabilize** customer bills and rate revenues.
- GWNA calculates abnormal sales therms based on abnormal weather and adjusts rates downward or upward on a real-time basis.
- GWNA eliminates the need for weather-related general rate increases which would remain on customers' bills (including bills for customers with non-weather sensitive usage) for an entire 12-month billing period.

How Does GWNA Work?

Season	Actual Weather Experienced	Impact on Billed Rate
Winter	Normal	No Impact
Winter	Colder Than Normal	Decrease
Winter	Warmer Than Normal	Increase

GWNA Example – Colder Than Normal

Base Load Therms	9	BTH
Actual Therms Consumed	148	ATH
Actual Heating Degree Days	576.0	ADD
Normal Heating Degree Days	449.0	NDD
Approved tariff rate (per therm)	0.52648	R

WNA Formula (per Tariff) $WNA = \frac{WSL \times R}{ATH - BTH}$ Where: $WSL = \frac{ATH - BTH}{ADD} \times (NDD - ADD)$

WNA Calculation

Therms per Actual HDD

$\frac{ATH - BTH}{ADD}$

Actual Therms Consumed		Base Load Therms		Weather Sens. Therms		Actual HDD's		Therms per Actual HDD
148	Less	9	Equals	139	Divided by	576	Equals	0.2413

Abnormal Sales Therms

X (NDD - ADD)

Normal HDDs		Actual HDDs		Abnormal HDDs		Therms per Actual HDD		Abnormal Therms	
449.0	Less	576	Equals	-127.0	Times	0.2413	Equals	-31	WSL

WNA Revenue and Factor

$\frac{WSL \times R}{ATH - BTH}$

Abnormal Therms		WNA Rate		WNA Revenue		Weather Sens. Therms		WNA Factor Calculated
-31	Times	0.52648	Equals	-16.32	Divided by	139	Equals	-0.11742

WSL = Weather Sensitive Load which is the difference in the amount of therms that would have been consumed by the customer during normal weather and the amount of therms actually consumed.

GWNA Example – Warmer than Normal

Exhibit No. __(RMR-3)

Base Load Therms	7	BTH
Actual Therms Consumed	46	ATH
Actual Heating Degree Days	240.5	ADD
Normal Heating Degree Days	437.5	NDD
Approved tariff rate (per therm)	0.52648	R

WNA Formula (per Tariff) WNA = $\frac{WSL \times R}{ATH - BTH}$ Where: WSL = $\frac{ATH - BTH}{ADD}$ X (NDD - ADD)

WNA Calculation

Therms per Actual HDD

$\frac{ATH - BTH}{ADD}$

Actual Therms Consumed	Less	Base Load Therms	Equals	Weather Sens. Therms	Divided by	Actual HDD's	Equals	Therms per Actual HDD
46		7		39		240.5		0.1622

Abnormal Sales Therms

X (NDD - ADD)

Normal HDDs	Less	Actual HDDs	Equals	Abnormal HDDs	Times	Therms per Actual HDD	Equals	Abnormal Therms	
437.5		240.5		197.0		0.1622		32	WSL

WNA Revenue and Factor

$\frac{WSL \times R}{ATH - BTH}$

Abnormal Therms	Times	WNA Rate	Equals	WNA Revenue	Divided by	Weather Sens. Therms	Equals	WNA Factor Calculated
32		0.52648		16.85		39		0.43198

WSL = Weather Sensitive Load which is the difference in the amount of therms that would have been consumed by the customer during normal weather and the amount of therms actually consumed.

GWNA Impact on RSA

	*2017 RSA (WNA)		2017 RSA (No WNA)
Operating Revenue ($ millions)	$385.7		$359.5
Income for Return ($ millions)	$42.6		$26.7
Rate Base ($ millions)	$589.0		$589.0
Rate of Return	7.23%		4.53%
ROE	8.49%		3.31%
Revenue Increase ($ millions)	**$8.6**		**$34.1**
% Increase to Revenue	2.24%		9.48%
Residential Increase (Annual Bill)	**3.30%**		**13.04%**

**Proposed RSA adjustment, pending PSC approval*